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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/092,281      | 03/06/2002  | Durham Russell Maples |                     | 7725             |

7590 10/04/2003  
Durham Russell Maples  
1507 Park Circle  
Camden, SC 29020

EXAMINER

RODRIGUEZ, JOSEPH C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3653

DATE MAILED: 10/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,281

Applicant(s)

MAPLES, DURHAM RUSSELL

Examiner

Joseph C Rodriguez

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding these claims, Applicant has claimed three methods of separating but has failed to specify the specific steps involved in the separating processes, thus rendering the claims indefinite. In current practice, proper claim language in method claims requires the use of the gerund form of a verb to describe each method step. For example, in attached U.S. patent 4,761,203 to Vinson, Vinson claims each of the steps that comprise the method using the gerund verb form by claiming "impacting" said material and then "separating" said material (See also Holmes, III, US '680; Yoon, US '853; and Palm et al., US '040). Examiner recommends using this format as Applicant's instant method claims merely recite elements that have been treated a certain way; for instance, the apparent step appearing in claim 6 also appears to be a part of claim 1, thus it is unclear what exact steps are part of the method of separating.

Further, multiple instances of the language "substances" found throughout the claims lack proper antecedent basis, thus rendering the claims indefinite. That is, it is unclear what specific "substance" is being referred to at times because Applicant has previously introduced multiple types of "substances". Examiner recommends using

language such as "first substance", "second substance", "third substance" and then subsequently referring to "said first substance", "said second substance", or "said third substance".

Further, the language "not efficient enough or is impossible to accomplish" (claim 2, para. 2), "too inefficient or not possible" (claim 2, last para.; claim 7; claim 11; claim 15) renders the scope of the claims indefinite as it is unclear how to determine when this type of vague parameter has been reached even in light of the specification. Examiner recommends eliminating this language and reminds Applicant that the claimed invention must be claimed "particularly" and "distinctly".

Regarding claims 5, 9 and 13, the language "which includes but is not exclusive to" (ln. 4) renders the claims indefinite as it is unclear what mechanical means of separation are part of Applicant's invention. Examiner recommends against the use of open-ended claim language that renders the scope of the claim indefinite.

Regarding claims 6, 10 and 14, it is unclear if the "at least one mechanical means of separation" (ln. 1) is separate from, or the same as, the "mechanical means of separation" in the independent claims. Examiner seeks clarification and recommends referring to features that have already been introduced by language such as "using said mechanical means of separation".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8, 12 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider (US '505).

Regarding these claims, Schneider teaches a method of separating comprising subjecting substances (polypeptide; enzymes) to an organic chemical reaction (molecular bonding to allow grafting substance to polymer/cellulose matrix), wherein said substances are thereby recovered using mechanical means (e.g., filtration membrane) (col. 2, ln. 33 et seq.). Schneider also expressly teaches the reversibility of the process to reconstruct the extracted substance to its original state (See Abstract).

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Petrovich (US '786).

Petrovich teaches a method of separating comprising subjecting substances (ores and mineral slurry) to an organic chemical reaction (oxidizing with nitrogen compound and hypochlorite), wherein substances are thereby recovered using mechanical means (flotation device)(See Abstract).

### ***Conclusion***

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph C Rodriguez whose telephone number is **703-308-8342**. The examiner can normally be reached on M-F during normal business hours (9 am – 6 pm, EST).

The examiner's **Personal fax number** is **703-746-3678**.


The **Official** fax phone number for the organization where this application or proceeding is assigned is **703-872-9326**.

The **UnOfficial** fax phone number for the organization where this application or proceeding is assigned is **703-306-2571 or 703-308-6552**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **703-308-1113**.

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September 29, 2003

  
DONALD P. WALSH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600